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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,486	02/12/2001	Monisha Ghosh	US 010027	9502

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER

WONG, ALLEN C

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/781,486

Applicant(s)

GHOSH, MONISHA

Examiner

Allen Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9, 10, 17, 18, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 5-8, 11-16, 19-22 and 25-29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 17 and 23 have been read and considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 6/24/05 have been fully read and considered but they are not persuasive.

Regarding page 17-18 of applicant's remarks about claims 9-10, applicant argues that there is no motivation or suggestion to combine the teachings of Jun and Betts. The examiner respectfully disagrees. In response, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Jun and Betts, as a whole, for implementing the data switches so as to guide the full rate or low rate data packets to their proper destination for receiving and viewing television programs and other programming in an efficient, precise manner.

Also, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the

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claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Regarding line 19 on page 18 to line 1 on page 19 of applicant's remarks, applicant asserts that Betts does not disclose the Reed-Solomon encoder or a data interleaver, the multiplexer or the exclusive OR unit. Jun already discloses the Reed-Solomon encoder, a data interleaver, the multiplexer and the exclusive OR unit. Jun does not specifically disclose a first data packet switch before said Reed Solomon encoder capable of determining whether a data packet is a full rate data packet or a half rate data packet, said first data packet switch capable of sending a full rate data to said Reed Solomon decoder and capable of sending a half rate data packet to said data interleaver; and a second data packet switch after said trellis encoder capable of determining whether a data packet is a full rate data packet or a half rate data packet, said second data packet switch capable of sending a full rate data packet to a multiplexer and capable of sending a half rate data packet to an exclusive OR unit.

However, Betts teaches the use of two data switches, as disclosed in fig.1, elements 16 and 42. Also note Betts' switch 42 is located after the trellis encoder, and switch 16 can be located after the data randomizer 10, and col.2, ln.37-43 discloses the utilization of exclusive OR operations for permitting the transmission of data to an exclusive OR unit. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Jun and Betts, as a whole, for implementing the data switches so as to guide the full rate or low rate data packets to their proper destination

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for receiving and viewing television programs and other programming in an efficient, precise manner. Both Jun and Betts are combinable and useable together because both references pertain to the same analogous data communication and data distribution environments.

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Jun and Betts, as a whole, for implementing the data switches so as to guide the full rate or low rate data packets to their proper destination for receiving and viewing television programs and other programming in an efficient, precise manner.

Also, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Regarding pages 19-20 of applicant's remarks, applicant argues the combination of Jun and Betts is improper. The examiner respectfully disagrees. The examiner has already addressed this issue in the above paragraphs and in the rejection below.

Thus, for the reasons explained above, the rejection is maintained.

Claims 5-8, 11-16, 19-22 and 25-29 are still objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 17-18 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jun (6,810,084) in view of Lyons (5,903,324).

Regarding claim 1, Jun discloses a system for sending low rate data on a packet basis in an 8-VSB standard data packet stream, said system comprising:

an 8-VSB signal transmitter capable of transmitting a low rate data packet that comprises data bytes that contain both information bearing bits and non-information bearing bits (see abstract, note "8 VSB transmitter" is used for transmitting; also fig.5 is an 8-VSB transmitter where there is a null packet detector 120 that detects the non-information bearing bits and then sends the data to the Reed Solomon encoder 130 for

preparation of transmission of data bytes that contain information bearing bits and non-information bearing bits).

Jun does not disclose each of one or more of the data bytes containing both bearing bits and non-information bearing bits. However, Lyons teaches that each of one or more of the data bytes containing both bearing bits and non-information bearing bits (col.3, ln.1-11, col.6, ln.5-11, note Lyons does disclose that each one or more of the data byte contain important data and non-important data, ie. bearing bits non-information bearing bits). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Jun and Lyons, as a whole, for receiving and viewing HDTV television programs and other programming in an efficient, precise manner (col.2, ln.44-49).

Regarding claims, 2-4, 17-18 and 24, Jun discloses a method for sending low rate data on a packet basis in an 8-VSB standard data packet stream, said method comprising the steps of:

placing data in a low rate data packet that comprises data bytes that contain both information bearing bits and non-information bearing bits (fig.5, there is a null packet detector 120 that detects the non-information bearing bits and then sends the data to the Reed Solomon encoder 130 for proper encoding of transmission of data bytes that contain information bearing bits and non-information bearing bits, and fig.8, note element 135 describes the process of interleaving data);

determining the values of said non-information bearing bits in said low rate data packet so that said non-information bearing bits will be correctly encoded (fig.5, there is

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a null packet detector 120 that determines the non-information bearing bits and then sends the data to the Reed Solomon encoder 130 for proper encoding of transmission of data bytes that contain information bearing bits and non-information bearing bits); and

transmitting said low rate data packet with an 8-VSB signal transmitter (see abstract, note "8 VSB transmitter" is used for transmitting; also fig.5 is an 8-VSB transmitter).

Jun does not disclose each of one or more of the data bytes containing both bearing bits and non-information bearing bits. However, Lyons teaches that each of one or more of the data bytes containing both bearing bits and non-information bearing bits (col.3, ln.1-11, col.6, ln.5-11, note Lyons does disclose that each one or more of the data byte contain important data and non-important data, ie. bearing bits non-information bearing bits). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Jun and Lyons, as a whole, for receiving and viewing HDTV television programs and other programming in an efficient, precise manner (col.2, ln.44-49).

Regarding claim 23, Jun discloses a high definition television system comprising a system for sending low rate data on a packet basis in an 8-VSB standard data packet stream, said system comprising:

an 8-VSB signal transmitter capable of transmitting a low rate data packet that comprises data bytes that contain both information bearing bits and non-information bearing bits (see abstract, note "8 VSB transmitter" is used for transmitting; also fig.5 is



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an 8-VSB transmitter where there is a null packet detector 120 that detects the non-information bearing bits and then sends the data to the Reed Solomon encoder 130 for proper encoding of transmission of data bytes that contain information bearing bits and non-information bearing bits).

Jun does not disclose each of one or more of the data bytes containing both bearing bits and non-information bearing bits. However, Lyons teaches that each of one or more of the data bytes containing both bearing bits and non-information bearing bits (col.3, ln.1-11, col.6, ln.5-11, note Lyons does disclose that each one or more of the data byte contain important data and non-important data, ie. bearing bits non-information bearing bits). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Jun and Lyons, as a whole, for receiving and viewing HDTV television programs and other programming in an efficient, precise manner (col.2, ln.44-49).

3. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jun (6,810,084) in view of Betts (4,677,625).

Regarding claims 9-10, Jun discloses a system for sending half rate data on a packet basis in an 8-VSB standard data packet stream in an 8-VSB signal transmitter of the type comprising a Reed Solomon encoder (fig.5, element 130), a data interleaver (fig.5, element 135), and a trellis encoder (fig.5, element 140), and the data packets are processed by exclusive OR operations (col.5, ln.28-32).

Although Jun does not specifically disclose a first data packet switch before said Reed Solomon encoder capable of determining whether a data packet is a full rate data

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packet or a half rate data packet, said first data packet switch capable of sending a full rate data to said Reed Solomon decoder and capable of sending a half rate data packet to said data interleaver; and a second data packet switch after said trellis encoder capable of determining whether a data packet is a full rate data packet or a half rate data packet, said second data packet switch capable of sending a full rate data packet to a multiplexer and capable of sending a half rate data packet to an exclusive OR unit. However, Betts teaches the use of two data switches (fig.1, elements 16 and 42, note switch 42 is located after the trellis encoder, and switch 16 can be located after the data randomizer 10, and col.2, ln.37-43 discloses the utilization of exclusive OR operations for permitting the transmission of data to an exclusive OR unit). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Jun and Betts, as a whole, for implementing the data switches so as to guide the full rate or low rate data packets to their proper destination for receiving and viewing television programs and other programming in an efficient, precise manner.

***Allowable Subject Matter***

4. Claims 5-8, 11-16, 19-22 and 25-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Jun discloses MPEG data frame and transmit and receive system. Betts discloses a distributed trellis encoder. Neither Jun nor Betts, taken alone or in combination, specifically disclose the limitation, "the system for sending low rate data on

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a packet basis in an 8-VSB standard data packet stream as claimed in claim 3 wherein said low rate data packet comprises eight (8) bit data bytes in which bit 6, bit 4, bit 2, and bit 0 in each data byte contain information and in which bit 7, bit 5, bit 3, and bit 1 in each data byte do not contain information", as disclosed in dependent claim 5.

Dependent claims 11, 19 and 25 are patentable for similar reasons as claim 5.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen Wong  
Primary Examiner  
Art Unit 2613

AW  
8/29/05